

### **REMARKS**

Claims 1 and 3-25 are currently pending in the subject application. Claims 3, 6-20 and 22 have been withdrawn. Claims 1, 21 and 23 have been amended. Support for the amendments to claims 1, 21 and 23 can be found, for example, at least at page 22, lines 20-21 and Example 3 of the instant specification. Accordingly, claims 1, 4, 5, 21, and 23-25 are presently under consideration. No new matter has been added.

Amendment or cancellation of claims should not be construed as an acquiescence, narrowing, or surrender of any subject matter. The amendments are being made not only to point out with particularity and to claim the present invention, but also to expedite prosecution of the present application. Applicants reserve the right to prosecute the originally filed claims further, or similar ones, in the instant or subsequently filed patent applications.

#### **Rejection of Claims 1, 4, 5, 21 and 23-25 Under 35 U.S.C. § 103(a)**

Claims 1, 4, 5, 21 and 23-25 are rejected under 35 U.S.C. §103(a) as being unpatentable over Coffee RA (WO 98/03267; hereinafter “Coffee 1”), in view of Coffee RA (US 2001/0003148; hereinafter “Coffee 2”) and Coffee RA (US 6,252,129; hereinafter “Coffee 3”), and further in view of Weinberg (US 4,837,379). Specifically, the Examiner is of the opinion that “[t]he limitations of orienting cells through mechanical force, or ‘wherein the construct has been strained, so that the cells are spread in parallel with the applied force’ have been explicitly or implicitly taught by the process disclosed by the referenced inventions of Coffee (WO 98/03267)...[s]uch process limitations are deemed to be intrinsic to the process of making the matrix material taught by the cited references of record” (see page 7 of the pending Non-Final Office Action).

Applicants respectfully traverse the rejection. Independent claims 1, 21 and 23, from which claims 4, 5, 24, and 25 depend, recite electrodeposited fibrin matrices comprising cells having been oriented through application of a stretching mechanical force to the electrodeposited fibrin matrix once it has already been formed. By contrast, Applicants respectfully submit that Coffee 1 merely discloses incorporation of cells into a solution prior to producing electrohydrodynamically generated matrices. For example, Coffee 1 at page 22 discloses that “[biologically active ingredients may, however, be added to the liquid before it is supplied to the outlet nozzle 4” such that cells are randomly dispersed in the resulting electrohydrodynamically

generated matrices without having been oriented through application of a stretching mechanical force. Moreover, the Examiner acknowledges that neither Coffee 1, Coffee 2, nor Coffee 3 even exemplifies an electrodeposited fibrin matrix comprising any cells at all, let alone compositions as recited in the claims (see page 4 of the pending Non-Final Office Action).

In addition, the Examiner cites Coffee 1 at pages 5-7, 22-23, and 28 (see page 4 of the pending Non-Final Office Action) to support the proposition that “it would have been clearly obvious to a person of ordinary skill in the tissue engineering art to incorporate cells...in the fibrin matrix in order to provide an electrodeposited fibrin matrix with cells having the benefits of incorporated biological agents” (see page 4 of the pending Non-Final Office Action). From this, the Examiner concludes that “[t]he process limitations as recited in [the] instant claims...are disclosed by Coffee RA, as it describes the same process steps of electrodeposition of materials in liquid, solution or suspension form...in order to obtain the electrodeposited fibrin matrix or mat containing cells” (see page 6 of the pending Non-Final Office Action). As stated above, Applicants respectfully submit that the none of the cited references, either alone or in any combination and either explicitly or implicitly, teaches or suggests electrodeposited fibrin matrices comprising cells having been oriented through application of stretching mechanical force to the electrodeposited fibrin matrix once it has already been formed.

To the extent that the Examiner is relying on purportedly “well-known” concepts or teachings in the art to support the pending claim rejections, Applicants respectfully request that the Examiner cite a reference in support of his position as required under M.P.E.P. § 2144.03; alternatively, if the Examiner is relying upon facts within his personal knowledge, the Examiner is respectfully requested to file an affidavit establishing those facts pursuant to M.P.E.P. § 2144.03.

Based on the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments. The Examiner may address any questions raised by this submission to the undersigned at (617) 832-1000. If any fees are due, the Commissioner is hereby authorized to credit any overpayment or charge any deficiencies to **Deposit Account No. 06-1448, Reference No. OGA-007.03.**

Respectfully submitted,

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